TRANSIT MODERNIZATION PROGRAM

PROPOSED BY

CHICAGO TRANSIT AUTHORITY

Estimated Cost - $152,000,000

Estimated Date of Completion - 1955

CHICAGO TRANSIT BOARD

Philip W. Collins — George F. Getz, Jr.

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1947

FOREWORD

Chicago Transit Authority proposes as an initial step toward a modern comprehensive local transit system for the Chicago Metropolitan Area, to buy and unify the transit properties and operations of Chicago Surface and Rapid Transit Lines and to carry forward a 10 year program of modernization and extension of the existing services now furnished by those companies. It also proposes to buy the properties and equipment of the Chicago Motor Coach Company, and merge these transit operations with the city-wide system, provided these properties can be acquired at a reasonable price.

It is contemplated that suburban transit operations within the Chicago Metropolitan Area also will be progressively acquired as rapidly as agreements may be reached with the municipalities served by those companies, and as fair prices for those properties can be determined. These will be progressively integrated with the Chicago city operations to provide a modern comprehensive transit operation adequately serving the entire area.

On the assumption that the Authority will take over in 1947, and taking as a base, the improvements already furnished in 1946 by the Surface Lines and those contemplated by them and by the Rapid Transit Lines in 1947, the accompanying report outlines in detail, the improvements, extensions, rehabilitations and new equipment which it is proposed to provide during each

year of the 10 year modernization period. The recommended improvements are provided for in the City Ordinance and reflect the result of extensive study and analysis of the existing operations and their relation to the transit and traffic requirements of the City. They represent the combined thought of experienced City and Transit Authority engineers, and of independent transit consultants of recognized standing and ability. It is believed also, that those charged with the direction of the present operations of the companies recognize the needs for improvements of substantially the same scope.

Obviously, as such a comprehensive program progresses, changing economic or traffic or riding conditions may demand modification of details as now forecast, either as to time, route, type or location of any specific improvement. Subject only to this qualification, it is confidently believed that the program can be financially and physically achieved as scheduled.

At present day prices, it is estimated that the completion of this ambitious ten-year improvement program will entail expenditure of $152,374,300, most of which will be over and above the cost of acquiring the existing properties from the operating companies. It contemplates the purchase of 2725 new buses, 1000 new elevated cars, 800 new street cars, a modern signal system on the entire elevated-subway system, miscellaneous improvements such as new shops, garages, rehabilitation of elevated structures, etc., and a continuing policy of replacing worn-out and obsolete equipment with new vehicles.

The portion of the program contemplating substitution of rubber-tired vehicles for street cars has been coordinated with the City's ten-year schedule of new street pavements.

The need for more and conveniently located fast rapid transit services for long-haul riding is recognized by the plans here included: (1) for completion and equipment of the city-owned subways in Milwaukee Avenue and Dearborn Street; (2) for construction by the City of a rapid transit subway in Congress Street to the West Side; (3) for rapid transit station modification and reconstruction to facilitate transferring by long-distance riders from surface to rapid transit lines and (4) by providing for cross-town express bus service on streets such as Western Avenue and others as defined in the City Ordinance.

In addition to proceeding promptly with this long-range overhaul of the entire system, the Transit Board proposes to immediately budget at least $2,000,000 annually to be devoted to providing on existing routes, more equipment and more frequent service pending the delivery of new, modern equipment.

A feasible plan for financing both the purchase of the existing properties and their modernization has been developed. It proposes the sale of revenue bonds which will be secured solely by the earnings of the operation, and by the right of Chicago Transit Authority to establish from time to time, equitable rates of fare sufficient for the payment of operating expenses and retirement of the debt, and for the cost of the modernization program.

Even after adding to the cost of operation, the expense of purchasing the properties and financing this needed improvement program, it is confidently forecast that unless wages and prices continue to increase, fares can be maintained at a reasonable level and certainly at levels comparable with any other large American city except New York, which maintains an abnormally low fare through huge annual city taxes. In any event fares can be held at a level lower than the existing companies would find sufficient to support the expense of private operation and necessary modernization. This is made possible by economies due to unification and by the use of modern equipment, by lower interest rates, by exemption from local and Federal taxes, and by the elimination of the need to pay a return on invested capital or on the "reproduction value" of the property.

Unless prevented by the counter-effect of a prohibitive level of material and equipment prices, and wages, it is predicted that the additional riding and revenues which the modernization of these properties will attract, and the economies possible with faster operation of modern equipment, will combine to eventually produce declining rates of fare.

CHICAGO TRANSIT AUTHORITY
GENERAL SCOPE OF THE $152,000,000 IMPROVEMENT
PROGRAM SCHEDULED FOR COMPLETION BY 1955

These improvements relate to the initial system comprising Chicago Surface Lines and Chicago Rapid Transit System, operated as a unified system, and the extension thereof. There is provided for the purchase of:-

2725 buses which will replace the operation of streetcars on 700 miles of track with modern bus service, establish 150 miles of express bus service, 220 round trip miles of extensions, and the replacement of the older buses now in operation. This equipment is estimated to cost-	$39,500,300
800 new streetcars which will modernize the service on the 310 miles of track on which very heavy lines are operated and which will be retained as streetcar operation for an undetermined period. This equipment is estimated to cost -	$18,949,000
New Garages, car houses and shops, and modernizing existing housing facilities to adequately service the new equipment and provide more efficient operations. These facilities are estimated to cost - - - - - - - - - - - - - - - -	$15,000,000
Other improvements to surface transit facilities including the Authority's obligation for payments for repaving of bus route streets estimated to cost - - - - - - - - - - - - - - - - -	$ 4,175,000
1000 modern type rapid transit cars which will replace all of the wooden elevated cars. This equipment is estimated to cost - - - - - - - - -	$50,000,000
A modern signal system on the elevated lines which will assure safe spacing of trains on all parts of the system estimated to cost - - - - - -	$10,800,000
Rehabilitation of the elevated structure, painting and remodeling of stations, and rebuilding of stations to facilitate transfer from Surface Lines to Elevated-Subway services estimated to cost - - - - - - - - - - - - - - - - - -	$ 7,400,000
Shops to efficiently maintain the new elevated-subway cars and other improvements on the rapid transit system estimated to cost - - - - - - - - -	$ 6,550,000
Total estimated cost of 10 yr. program-	$152,374,300

As other properties are acquired such as Chicago Motor Coach Company or suburban lines, this program will be expanded to provide essential improvements on those routes.

1946 IMPROVEMENT PROGRAM

While the year 1946 has passed, the improvements installed by Chicago Surface Lines in that year are part of the overall program. The benefits from these improvements will not be fully realized for an entire year until 1947.

ON THE SURFACE LINES	Actual Cost
277 gas buses	$3,318,000

This permitted:

The substitution of buses for streetcars on seven routes, permitted the elimination of 60 miles of track.

The establishment of four new routes and extended service on four routes, totaling 54 round trip miles of added service.

New express bus service on Cicero, Archer and State between the Airport and the Loop, 22 miles.

68 new streetcars	$1,513,000

These were placed in service on the Clark-Wentworth line.

TOTAL COST OF NEW EQUIPMENT PLACED IN SERVICE IN 1946-$4,831,000

Not included in the above total was the acquisition of land for new garages and terminals, and new tools and shop equipment purchased with the Surface Lines renewal funds.

Minor improvements were made on various parts of the Rapid Transit System and considerable engineering work was done in connection with the City-owned subways now under construction and on a signal system for the elevated lines.

1947 IMPROVEMENT PROGRAM

ON THE SURFACE LINES	Estimated Cost
188 gas buses now on order - - - - - - - - - - -	$2,354,800
These will be used for:	
Substitution of buses for streetcars permitting the elimination of 138 miles of track.	
New routes or extensions totaling 28 routes or extensions totaling 28 round trip miles.	
155 Trolley buses now on order - - - - - - - - - -	$2,525,000
These will permit the substitution of trolley buses for streetcar service, and allow for the elimination of 44 miles of track.	
512 new street cars now on order - - - - - - - - -	$12,156,000
These cars will be sufficient to equip four major streetcar lines.	
Overhead line construction for trolley bus routes- -	$ 200,000
Land and Buildings - - - - - - - - - - - - - - - - -	$ 1,000,000
This expenditure will completely remodel an existing facility for use as a combination bus garage and car house and acquire land for additional garages.	
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1947-	$18,235,800
ON THE RAPID TRANSIT LINES	
The Elevated-Subway experimental train of 8 cars will be delivered before the end of the first half of 1947- - - - - - - - - - -	$ 400,000
This train will be thoroughly tested to determine the standard for future orders for Elevated-Subway cars.	
TOTAL COST OF CAPITAL IMPROVEMENTS ON THE COMBINED SYSTEM IN 1947 -	$18,635,800

CHICAGO TRANSIT AUTHORITY
1948 IMPROVEMENT PROGRAM

ON THE SURFACE LINES	Estimated Cost
250 gas buses - These will be substituted for streetcars and permit the elimination of 65 miles of track; provide extensions totaling 48 round trip miles, and 17.5 miles of express bus service.	$3,500,000
55 trolley buses now on order - These will replace streetcars and permit the elimination of 12 miles of track.	$ 902,500
20 new streetcars, completing the 600-car order	$ 480,000
Land and Buildings for additional garages	$2,000,000
New Shops and Miscellaneous Equipment - For off-street terminals for streetcars and bus lines, for tools and the start on a new general shop.	$ 500,000
Overhead line construction for the trolley bus routes	$ 175,000
Payment to City for paving abondoned streetcar right-of-way	$ 300,000
Appropriation for relocating off-center streetcar tracks	$ 50,000
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1948	$7,907,500

ON THE RAPID TRANSIT LINES	
65 Elevated-Subway cars for use on the Milwaukee-Lake-Dearborn Subway	$3,250,000
Modern signal system starting on West Side lines	$1,500,000
Rebuilding the Wells St. viaduct and structure improvement in various places	$ 500,000
Addition to the Electric Distribution System	$ 100,000
Structure clearances for wider cars	$ 200,000
Payment to City for subway transportation equipment	$ 150,000
TOTAL RAPID TRANSIT CAPITAL IMPROVEMENTS IN 1948	$5,700,000

TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM IN 1948 - $13,607,500

In 1948 work will be intensified on the City-built Milwaukee-Lake-Dearborn subway, looking to the beginning of operation in 1949.

CHICAGO TRANSIT AUTHORITY
1949 IMPROVEMENT PROGRAM

	Estimated Cost
ON THE SURFACE LINES	
250 gas buses - These will be substituted for streetcars, permitting the removal of 103 miles of track, and adding 26 round trip miles of new service.	$3,500,000
Construction and fixtures in three new garages	$2,000,000
New Shops and Miscellaneous Equipment - For off-street terminals for streetcars and bus lines, for tools, and for new general shop.	$ 500,000
Rehabilitation of overhead lines	$ 200,000
Payment to City, for paving abandoned streetcar right-of-way	$ 300,000
Approporation for relocating off-center streetcar tracks	$ 50,000
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1949	$6,550,000
ON THE RAPID TRANSIT LINES	
115 Elevated-Subway cars - 65 will complete the Milwaukee-Lake-Dearborn subway service, and 50 will supplement service elsewhere.	$5,750,000
Modernizing 225 of the present steel elevated-subway cars	$ 300,000
Installation of a modern signal system with substantial work on the North Side and South Side	$1,500,000
Improvements to "L" structure at various places	$ 500,000
Complete rebuilding of Logan Square station to facilitate transfers	$ 100,000
Additions to the Electric Distribution system	$ 100,000
Structure clearances for wider cars	$ 200,000
Special shop tools for maintaining new cars	$ 200,000
Payment to City for subway transportation equipment	$ 250,000
TOTAL RAPID TRANSIT CAPITAL IMPROVEMENTS IN 1949	$8,900,000
TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM IN 1949	$15,450,000

CHICAGO TRANSIT AUTHORITY
1950 IMPROVEMENT PROGRAM

	Estimated Cost
ON THE SURFACE LINES	
300 buses - 100 will be used in replacing older buses and 200 in substituting buses for streetcars, permitting removal of 49 miles of track and providing for 16 miles of new service.	$4,550,000
100 new streetcars for replacement of older cars	$2,400,000
Land and Buildings for two new garages	$ 500,000
New Shops and Miscellaneous Equipment - For off-street terminals for streetcar and bus lines and for further work on the general shop.	$1,000,000
Rehabilitation of overhead line	$ 200,000
Payment to City for paving abandoned streetcar right-of-way	$ 300,000
Appropriation for relocating off-center streetcar tracks	$ 50,000
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1950	$9,000,000
ON THE RAPID TRANSIT LINES	
200 Elevated-Subway cars for use on the West Side lines	$10,000,000
Completion of modernizing the present elevated-subway steel cars	$ 300,000
Signal system work on North Side and on Lake St.	$ 1,500,000
Rebuilding of stations at various locations and structures improvements	$ 1,000,000
Rebuilding of Kimball Ave. and Cottage Grove stations to facilitate transfers	$ 100,000
Additions to the Electric Distribution System	$ 100,000
Structure clearances for wider cars	$ 200,000
Moving columns from main traffic roadways	$ 25,000
Expenditures for a West Side major overhaul shop	$ 300,000
Payment to City for subway transportation equipment	$ 250,000
TOTAL RAPID TRANSIT CAPITAL IMPROVEMENTS IN 1950	$13,775,000
TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM IN 1950	$22,775,000

CHICAGO TRANSIT AUTHORITY
1951 IMPROVEMENT PROGRAM

	Estimated Cost
ON THE SURFACE LINES	
300 buses - 100 will be used in replacing older buses and 200 will be substituted for streetcars, permitting removal of 45 miles of track, and also providing for 35 miles of express bus service, for 14 miles of new local service.	$4,550,000
100 new streetcars for replacement of older cars	$2,400,000
Construction work on a new bus garage	$ 500,000
Construction work on the new main shop	$1,000,000
Overhead line construction to rehabilitate the present system	$ 200,000
Payment to City for paving abandoned streetcar right-of-way	$ 300,000
Appropriation for relocating off-center streetcar tracks	$ 50,000
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1951	$9,000,000
ON THE RAPID TRANSIT LINES	
200 elevated-subway cars for use on the West Side lines	$10,000,000
Additional work on the installation of a modern signal system	$ 1,500,000
Remodeling and modernizing stations and structure improvements in various locations	$ 1,000,000
Rebuilding of Jackson Park station and Halsted (Englewood) station to facilitate transfers	$ 100,000
Structure clearances for wider cars	$ 200,000
Moving columns from main traffic roadways	$ 25,000
Further expenditures for West Side overhaul shop	$ 200,000
Payment to City for subway transportation equipment	$ 350,000
TOTAL RAPID TRANSIT CAPITAL IMPROVEMENTS IN 1951	$13,375,000
TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM IN 1951	$22,375,000

CHICAGO TRANSIT AUTHORITY
1952 IMPROVEMENT PROGRAM

	Estimated Cost
ON THE SURFACE LINES	
275 buses - 75 will be used to replace older buses, and 200 will be substituted for streetcars, permitting removal of 64 miles of track, and providing for 15 miles of new service.	$4,150,000
New garage buildings to house buses	$1,000,000
Additional sections of the main general shop	$1,000,000
Additional overhead line construction to rehabilitate the present system	$ 200,000
Payment to City for paving abandonded streetcar right-of-way	$ 300,000
Appropriation for relocating off-center streetcar tracks	$ 50,000
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1952	$6,700,000
ON THE RAPID TRANSIT LINES	
112 Elevated-Subway cars for replacement of wooden cars	$5,600,000
Additional work on the installation of a modern signal system	$1,500,000
Remodeling and modernizing stations and structure improvements at various places	$1,000,000
New Loomis (Englewood)station to facilitate transfers	$ 100,000
Structure clearances for wider cars	$ 200,000
Moving columns from main traffic roadways	$ 25,000
Appropriation for easing curves	$ 200,000
An additional section on the new West Side shop	$ 200,000
Payment to City for subway transportation equipment	$ 350,000
TOTAL RAPID TRANSIT CAPITAL IMPROVEMENTS IN 1952	$9,175,000
TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM IN 1952	$15,875,000

By this time, if the work can be financed by the City, the $33,500,000 West Side subway (requiring $8,000,000 additional for transportation equipment) is expected to be approaching completion.

CHICAGO TRANSIT AUTHORITY
1953 IMPROVEMENT PROGRAM

ON THE SURFACE LINES	Estimated Cost
275 buses -	$4,150,000
75 will be used in replacing older buses, 200 will be substituted for streetcars permitting the renewal of 46 miles of track, and providing for 14 miles of new service.	
Additional construction of new garages to house and service buses - - - - - - - - - - - - - - - - - -	$1,000,000
Further additions to the new main shop - - - - -	$1,000,000
Overhead line construction to rehabilitate the present system.- - - - - - - - - - - - - - - - - - -	$ 200,000
Payment to City for abandoned streetcar right-of-way- -	$ 300,000
Appropriation for relocating off-center streetcar tracks -	$ 50,000
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1953- - -	$6,700,000
ON THE RAPID TRANSIT LINES	
100 Elevated-Subway cars for replacement of wood cars -	$5,000,000
Additional work on the installation of a signal system -	$1,500,000
Remodeling and modernizing stations and structures	1,000,000
Structure clearances for wider cars - - - - - - - -	$ 200,000
Moving columns from main traffic roadways- - - - -	$ 25,000
Additional appropriation for easing curves- - - -	$ 200,000
Additional construction and equipping the new West side shop - - - - - - - - - - - - - - - - - - -	$ 200,000
Payment to City for subway transportation equipment	350,000
TOTAL RAPID TRANSIT CAPITAL IMPROVEMENTS IN 1953 - -	$8,475,000
TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM in 1953 - - - -	$15,175,000

At this stage it is planned to push to completion, by the City, the East-West subways in Washington St. and Jackson Blvd. to speed up both mass transit and street traffic in the downtown district.

CHICAGO TRANSIT AUTHORITY
1954 IMPROVEMENT PROGRAM

ON THE SURFACE LINES	Estimated Cost
200 buses -	$3,000,000
These will be used in the substitution of buses for streetcars, permitting removal of 61 miles of track, and providing for 14 miles of new service.	
Construction of additional garage facilities to house buses -	$1,000,000
Payment to City for paving abandoned streetcar right-of-way -	$ 300,000
Appropriation for relocating off-center streetcar tracks -	$ 50,000
TOTAL SURFACE LINES CAPITAL IMPROVEMENTS IN 1954 - -	$4,350,000
ON THE RAPID TRANSIT LINES	
100 Elevated-Subway cars to replace wood cars -	$5,000,000
Remodeling and modernizing stations and structure improvement will continue - - - - - - - - -	$1,000,000
Additional work on a modern signal system - - -	$1,000,000
Moving columns from main traffic roadways - - -	$ 25,000
Additional expenditures for the new West Side shop -	$ 200,000
Payment to City for subway transportation equipment -	$ 350,000
TOTAL RAPID TRANSIT CAPITAL IMPROVEMENTS IN 1954 - -	$7,575,000
TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM IN 1954 - - - -	$11,925,000

The seven year superhighway program, if completed in this year will permit the installation of express bus service to the far northwest side and to the new airport over the Northwest Superhighway. Express bus service can be given to the far south over the South Side Superhighway, and to the west side over the Congress Street Superhighway. These would total upwards of 70 miles of round trip route.

CHICAGO TRANSIT AUTHORITY
1955 IMPROVEMENT PROGRAM

ON THE SURFACE LINES	Estimated Cost
200 buses -	$3,000,000
These will be used in the substitution of buses for street cars on two major routes replacing 50 miles of track, 14 miles of extension and 21 miles of express bus.	
Construction will be completed on garages to house and service buses, cost - - - - - - - - - - - -	$1,000,000
Payment to City for paving abandoned streetcar right-of-way- - - - - - - - - - - - - - - - - - - -	$ 300,000
Appropriation for relocating off-center streetcar track- -	$ 50,000
TOTAL SURFACE LINES IMPROVEMENTS WILL BE - - - - - - - -	$4,350,000
ON THE RAPID TRANSIT LINES	
100 Elevated-Subway cars to complete the replacement of all wood cars- - - - - - - - - - - -	$5,000,000
Completion of work on a modern signal system for the Elevated - - - - - - - - - - - - - - - - -	$ 800,000
Completion of modernizing and decorating stations and structure improvements - - - - - - - - - - - - -	$1,000,000
Moving columns from main traffic roadways - - - -	$ 25,000
Final completion and equipping the West Side shop-	$ 200,000
Payment to City for subway transportation equipment -	$ 350,000
TOTAL RAPID TRANSIT IMPROVEMENTS IN 1955 - - - - - - - -	$7,375,000
TOTAL COST OF CAPITAL IMPROVEMENTS FOR COMBINED SYSTEM IN 1955 - - - - - -	$11,725,000

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